



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,763	03/19/2004	Yan Qi	A-72186-1/TAL/DCF	8097
32940 7590 02/13/2008 DORSEY & WHITNEY LLP 555 CALIFORNIA STREET, SUITE 1000 SUITE 1000 SAN FRANCISCO, CA 94104				
EXAMINER				
KELLY, ROBERT M				
ART UNIT		PAPER NUMBER		
1633				
MAIL DATE		DELIVERY MODE		
02/13/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/804,763

Applicant(s)

QI ET AL.

Examiner

ROBERT M. KELLY

Art Unit

1633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,14,15,18 and 19 is/are pending in the application.
4a) Of the above claim(s) 12,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7 and 19 is/are rejected.
- 7) ☒ Claim(s) 6,8-11 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment and response of 2/7/07 is entered.

Claims 3, 13, 16, and 17 are cancelled.

Claims 1, 2, 4-12, 14 and 15 are amended.

Claims 18-19 are newly added.

Claims 1, 2, 4-12, 14, 15, 18, and 19 are presently pending.

Claim Status, Cancelled Claims

In light of the cancellation of Claims 3, 13, 16, and 17, all rejections and/or objections to such claims are rendered moot, and thus, are withdrawn.

Election/Restrictions

This application contains claims 12, 14, and 15 drawn to an invention nonelected with traverse in the reply filed on 5/31/06. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claims 1, 2, 4-11, 18, and 19 are presently eligible for consideration for the elected invention and species, with the rejoinder of SEQ ID NO: 2, as it is noted that the other species are no longer specifically claimed.

Claim Objections

Claims 6, 8-11, and 18 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple-dependent claim. See MPEP § 608.01(n). Accordingly, the claims 8-11 and 18 have not been further treated on the merits.

Claims 6, 8-11, and 18 are withdrawn from consideration, along with all objections and/or rejections pending correction of the improper claim dependencies.

Claims 1, 2, 4, 5, 7, and 19 are presently considered.

Claim 2 is objected to because of the following informalities:

Claims 2 and 4 each recite the term “said CD8 polypeptide”, while the claim from which they depend only recite for support for such term “a CD8 [alpha]-chain polypeptide”. However, because the Artisan would know what was encompassed, the claims are not rejected for lack of antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In light of the amendments, the rejections of Claims 1-2 and 5-7 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, of record, are withdrawn.

The amendments overcome the lack of clarity previously cited.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In light of the amendments, the rejections of Claims 1, 2, and 4-5 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, are withdrawn.

To wit, the claims are drawn to isolated polynucleotides, and hence, do not encompass such non-statutory subject matter.

Aruffo Reference Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

While the rejection to Claim 5 is withdrawn, Claims 1 and 2 remain rejected, and Claim 19 is newly rejected, under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,540,926 to Aruffo, et al., as further evidenced by WO 04/042346 to Wohlgemuth, et al. and the previously attached SEQUENCE COMPARISON 1 OF 9/6/06, for reasons of record, as modified below.

The rejections of Claim 5 is withdrawn, as such claim now requires the transmembrane domain of the CD8-alpha chain, while Aruffo only teaches the extracellular domain (e.g., col. 8).

Aruffo teaches the preparation of soluble GP39, wherein the GP39 is linked to human CD8-alpha which minimally comprises its extracellular domain (e.g., col. 8, paragraph 5). Such proteins are taught to be made from nucleic acids transformed into a host cell which comprises an operatively linked promoter, and inherently must also comprise the translational control elements, otherwise the proteins would not be able to be translated (e.g., col. 7, paragraph 4). Moreover, the functional portion of the CD8-alpha chain in this case is that functional portion for tagging the GP39.

With regard to claim 19, Aruffo also teaches the use of plasmids and adenoviral vectors (col. 7, paragraph 3).

Further, as evidenced by Wohlgermuth, the nucleotide sequence is 100% identical to Applicant's claimed sequence for human CD8 alpha (See Attached SEQUENCE COMPRISON 1 OF 9/6/06, which demonstrates the sequence identity).

Response to Argument – anticipation, Aruffo

Applicant's argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues that the invention is not a fusion construct, and hence, Aruffo does not anticipate the invention (pp. 7-8, paragraph bridging).

Such is not persuasive. There is nothing in the claims as rejected to preclude the fusion construct. Hence, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

While the rejection to Claims 5 is withdrawn, Claims 1 and 2 remain rejected, and Claim 19 is newly rejected, under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,540,926 to Aruffo, et al., and US Pat. No. 6,193,980 to Efstathiou, et al., as further evidenced by WO 04/042346 to Wohlgemuth, et al. and that attached SEQUENCE COMPARISON 1 OF 9/6/06, for reasons of record, and as described below for reasons necessitated by the amendments.

The rejections of Claim 5 is withdrawn, as such claim now requires the transmembrane domain of the CD8-alpha chain, while Aruffo only teaches the extracellular domain (e.g., col. 8).

As shown above, Aruffo teaches the various aspects of each claim. Moreover, Aruffo teaches that the protein may be grown in any mammalian cell (e.g., col. 7, paragraph 3). However, Aruffo does not teach the aspect of using a replication defective herpes virus vector.

On the other hand, Efstathiou teaches replication defective herpes simplex virus comprising heterologous inserts for producing long-term infection and protein production in, *inter alia*, the sensory neurons of the dorsal root ganglia (e.g., col. 1, paragraph 5).

Hence, at the time of invention, it would have been obvious to modify the vectors of Aruffo with the HSV vectors Efstathiou to arrive at the claimed invention. The artisan would have been motivated to do so in order to express the transgene for long terms, in dorsal root ganglia cells. The Artisan would also have had a reasonable expectation of success, Aruffo had demonstrated the protein's production, and Efstathiou had demonstrated that the vectors were useful for protein production in dorsal root ganglia.

Response to Argument – Obviousness, Aruffo and Efstathiou

Applicant's argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues there is no motivation to provide anything other than a fusion protein in Aruffo, and as such, the claims are not obvious (p. 9, paragraph 3-p. 10, paragraph 1).

Such is not persuasive. There is nothing in Applicant's rejected claims to preclude fusion constructs, as discussed above, with regard to anticipation. Still further, as is apparent from Applicant's argument cancelling dependent claims drawn to fusion constructs, Applicant's invention comprises fusion constructs (pp. 9-10, paragraph bridging). As such, without such specific language removing fusion constructs in the claims, the claims are necessarily obvious.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

While the rejections of Claims 5 is withdrawn, Claims 1 and 2 remain rejected, and Claim 19 is newly rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,540,926 to Aruffo, et al., and US Pat. No. 6,509,150 Salvetti, et al., as further evidenced by WO 04/042346 to Wohlgemuth, et al. and that attached SEQUENCE COMPARISON 1 OF 9/6/06, for reasons of record, as modified below due to the amendments.

The rejections of Claim 5 is withdrawn, as such claim now requires the transmembrane domain of the CD8-alpha chain, while Aruffo only teaches the extracellular domain (e.g., col. 8).

As shown above, Aruffo teaches the various aspects of each claim. Moreover, Aruffo teaches that the protein may be grown in any mammalian cell (e.g., col. 7, paragraph 3). However, Aruffo does not teach the aspect of using a replication defective herpes virus vector.

On the other hand, Salvetti teaches adenoassociated viral vectors comprising heterologous inserts with improved efficiency, and may be for specific localization of intergration of the vector (ABSTRACT; col. 6, last paragraph).

Hence, at the time of invention, it would have been obvious to modify the vectors of Aruffo with the AAV vectors of Salvetti to arrive at the claimed invention. The artisan would have been motivated to do so in order to produce vectors with improved efficiency, for producing pharmaceutical proteins. The Artisan would also have had a reasonable expectation of success, Aruffo had demonstrated the protein's production, and Salvetti had demonstrated that the vectors could be used for specific integration (EXAMPLES).

Response to Argument – Obviousness, Aruffo and Salvetti

Applicant's argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues there is no motivation to provide anything other than a fusion protein in Aruffo, and as such, the claims are not obvious (p. 9, paragraph 3-p. 10, paragraph 1).

Such is not persuasive. There is nothing in Applicant's rejected claims to preclude fusion constructs, as discussed above, with regard to anticipation. Still further, as is apparent from Applicant's argument cancelling dependent claims drawn to fusion constructs, Applicant's invention comprises fusion constructs (pp. 9-10, paragraph bridging). As such, without such specific language removing fusion constructs in the claims, the claims are necessarily obvious.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

While the rejections of Claims 5 are withdrawn, Claims 1 and 2 remain rejected, and Claim 19 is newly rejected, under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,540,926 to Aruffo, et al., and US Pat. No. 6,207,456 to Baru, et al., as further evidenced by WO 04/042346 to Wohlgemuth, et al. and that attached SEQUENCE COMPARISON 1 OF 9/6/06.

The rejections of Claim 5 are withdrawn, as such claim now requires the transmembrane domain of the CD8-alpha chain, while Aruffo only teaches the extracellular domain (e.g., col. 8).

As shown above, Aruffo teaches the various aspects of each claim. Moreover, Aruffo teaches that the protein may be grown in any mammalian cell (e.g., col. 7, paragraph 3). However, Aruffo does not teach the aspect of using a replication defective herpes virus vector.

On the other hand, Baru teaches liposome delivery systems for plasmids comprising heterologous inserts with improved efficiency in vitro (e.g., ABSTRACT; col. 1, last paragraph).

Hence, at the time of invention, it would have been obvious to modify the plasmid vectors of Aruffo with the liposome vectors of Baru to arrive at the claimed invention. The artisan would have been motivated to do so in order to produce vectors with improved efficiency, for producing pharmaceutical proteins. The Artisan would also have had a reasonable

expectation of success, Aruffo had demonstrated the protein's production, and Baru had demonstrated the improved efficiency of such vector liposomes (EXAMPLES).

Response to Argument – Obviousness, Aruffo and Baru

Applicant's argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues there is no motivation to provide anything other than a fusion protein in Aruffo, and as such, the claims are not obvious (p. 9, paragraph 3-p. 10, paragraph 1).

Such is not persuasive. There is nothing in Applicant's rejected claims to preclude fusion constructs, as discussed above, with regard to anticipation. Still further, as is apparent from Applicant's argument cancelling dependent claims drawn to fusion constructs, Applicant's invention comprises fusion constructs (pp. 9-10, paragraph bridging). As such, without such specific language removing fusion constructs in the claims, the claims are necessarily obvious.

Bonyhadi Reference Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, and 5, remain rejected, and Claim 19 is newly rejected, under 35 U.S.C. 102(b) as being anticipated by Bonyhadi, et al. (1997) J. Virol., 71(6): 4707-16 for reasons of record and as necessitated by the amendments, below.

With regard to Claim 1, 4, 5, and 19, Bonyhadi teaches a nucleotide sequence comprising both a sequence encoding a therapeutic Rev mutant, and the mouse CD8-alpha gene sequence (e.g., FIGURE 2). Moreover, such sequences are operably linked to one or more transcriptional and translational regulatory sequences for their expression (e.g., the LTR and an IRES).

With regard to the amendments of Claims 4 and 5, requiring that the CD8-alpha chain consist essentially of the extracellular and transmembrane domains, it is noted that:

By inclusion of the term “consisting essentially of” in the amended claim language, it appears that applicants have attempted to limit the CD8-alpha chain to exclude the intracellular domain. However, the specification does not define the use of the term “consisting essentially of”. Still further, the essential characteristic of the CD8-alpha chain appears to be its ability to function as a veto molecule, which most preferably comprise such sequences (e.g., SPECIFICATION, paragraph 0011). Absent a clear indication in the specification or claims as to what is considered a material change in such basic and novel characteristics of “consisting essentially of”, it will be construed as equivalent to “comprising” (see MPEP 2111.03). Therefore, a person of skill in the art would not have concluded that the claimed compositions are limited to only the extracellular and transmembrane domains.

Response to Argument – anticipation, Bonyhadi

Applicant’s argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues that Bonyhadi only teaches the transmembrane and cytoplasmic portions of the CD8-alpha chain disclosed in such reference, and further only describes a single transcript comprising both the therapeutic molecule encoded and the CD8-alpha encoded (p. 8, paragraph 2).

Such is not persuasive. Applicant has not disclosed the location of the quoted sequence, but the Examiner argues that the Artisan knows that such sequence MUST include both the extracellular and transmembrane portions, as it is used in isolation via FACS to obtain those cells expressing the encoded genes (e.g., FIGURE 1). If there is a reference which excludes the extracellular sequence, it is argued that it is a typographical error, as the FACS isolation of such

cells requires that there exist an extracellular sequence to bind to. Also, Figure 1 also clearly indicates that the extracellular sequence is present, as it is required for “flow cytometric analysis of the transgene-encoded surface Lyt2 expression (FIGURE 1, legend). With regard to the single transcript of Bonyhadi, it is noted that nothing in the claims rejected requires that the encoded molecules be on distinct transcripts.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, and 7 remain rejected, and Claim 19 is newly rejected, under 35 U.S.C. 103(a) as being unpatentable over Zimmer, et al. (1999) Molecular Medicine 5(4): 244-53 and Bonyhadi, et al. (1997) J. Virol., 71(6): 4707-16, for reasons of record and as required by amendment below.

Zimmer teaches the administration of adenoviral vectors comprising the mouse or human ornithine carbamoyl transferase gene, for treatment of mice with OTC deficiency (ABSTRACT).

However, Zimmer does not teach the aspects of such adenoviral vector further comprising a CD8-alpha transgene.

On the other hand, Bonyhadi teaches that a second transgene encoding for CD8-alpha chain can be used for detection and/or enrichment of the transformation of the transduced cells

(p. 4708, paragraph bridging columns). Further, as noted above, the CD8-alpha gene meets the requirements.

Hence, at the time of filing it would have been obvious to modify the methods of Zimmer with those of Bonyhadi, to arrive at an adenoviral vector comprising transgenes for CD8-alpha, lacking its cytoplasmic tail, and for ornithine carbamoyl transferase. The Artisan would be motivated to do so to monitor and isolate the cells of Zimmer's transformed animals that were transformed, in order to study the amounts of ornithine carbamoyl transferase which was expressed, as taught by Zimmer. Moreover, the Artisan would have had a reasonable expectation of success, Zimmer had shown the method to work, and Bonyhadi had demonstrated that the cells' protein levels could be analyzed.

Alternatively, given Applicant's aversions, and if it should be proven that Bonyhadi did not utilize the whole portion of the extracellular domain of CD8-alpha, it would have been obvious to substitute the whole portion of CD8-alpha, as the methods utilized (FACS) necessarily requires a domain attached to the cell for isolation by antibody labeling. Hence, utilization of the whole extracellular domain would be obvious, as it is standard in the Art to have the extracellular domain.

Response to Argument – Obviousness, Zimmer and Bonyhadi

Applicant's argument of 2/7/07 has been fully considered but is not found persuasive.

Applicant argues that Bonyhadi does not teach the extracellular domain (p. 10, paragraph 2).

Such is not persuasive. As noted above, Bonyhadi does teach the extracellular domain, otherwise FACS analysis could not be had.

Applicant argues that Bonyhadi teaches making a single transcript, but Applicant's claims do not require such single transcript to be made (pp. 10-11, paragraph bridging).

Such is not persuasive. There is no mechanistic description in the claims requiring separate transcripts.

Conclusion

No Claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Kelly, Art Unit 1633, whose telephone number is (571) 272-0729. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Weitach can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Kelly, Ph.D.
Examiner, USPTO, AU 1633
Patents Hoteling Program
Mailbox 2C70, Remsen Building
(571) 272-0729

/Joseph T. Weitach/
Supervisory Patent Examiner, Art Unit 1633

Application Number**Application/Control No.**

10/804,763

**Applicant(s)/Patent under
Reexamination**

QI ET AL.

Examiner

ROBERT M. KELLY

Art Unit

1633